

CLAIMS

What is claimed is:

1. A light emitting diode package comprising:

5 a ceramic cavity comprising a substrate for mounting a light emitting diode and substantially vertical sidewalls for minimizing light leakage; and a metallic coating on a portion of said ceramic substrate for reflecting light in a predetermined direction.

10 2. The light emitting diode package of Claim 1 wherein said ceramic cavity is filled with an optically transparent material.

3. The light emitting diode package of Claim 1 wherein said ceramic cavity is substantially white in color.

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4. The light emitting diode package of Claim 1 wherein said metallic coating comprises silver.

20 5. The light emitting diode package of Claim 1 wherein said metallic coating comprises gold.

6. The light emitting diode package of Claim 1 wherein said metallic coating is formed by plating.

7. The light emitting diode package of Claim 1 wherein said ceramic cavity is formed to contain a plurality of light emitting diodes.
8. A method for manufacture of a light emitting diode package comprising:
  - 5 forming a ceramic cavity comprising a substrate for mounting a light emitting diode and substantially vertical sidewalls for reducing light leakage;
  - coating a portion of said ceramic cavity with a light reflective material;
  - positioning a light emitting diode on said substrate; and
  - depositing an optically transparent material in said cavity to protect said
- 10 light emitting diode.
9. The method as described in Claim 8 wherein said ceramic cavity is substantially white in color.
- 15 10. The method as described in Claim 8 wherein said light reflective material comprises silver.
11. The method as described in Claim 8 wherein said light reflective material comprises gold.
- 20 12. The method as described in Claim 8 wherein said reflective coating is formed using plating.

13. The method as described in Claim 8 wherein said ceramic cavity is formed to mount a plurality of light emitting diodes.

14. A light source comprising:

5 a ceramic cavity comprising a substrate for mounting a light emitting diode and sidewalls for reducing light leakage ;

a metallic coating on a portion of said ceramic substrate for reflecting light in a predetermined direction;

a light emitting diode coupled to said substrate; and

10 an optically transparent coating for protecting said light emitting diode.

15. The light source of Claim 14 wherein said ceramic cavity is substantially white in color.

15 16. The light source of Claim 14 wherein said metallic coating comprises silver.

17. The light source of Claim 14 wherein said metallic coating comprises gold.

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18. The light source of Claim 14 wherein said metallic coating is formed by plating.

19. The light source of Claim 14 further comprising a plurality of light emitting diodes coupled to said substrate.